

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	34	HFB1 or HFBII	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:35
S2	11	(HFB1 or HFBII) and (foaming or foam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:34
S3	5	(HFB1 or HFBII) same (foaming or foam)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:34
S4	148	hydrophobin	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:39
S5	18	hydrophobin and (foam or foaming)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:39
S6	8	hydrophobin same (foam or foaming)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:36
S7	29	hydrophobin and fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:40
S8	11	hydrophobin same fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:41
S9	60	hydrophobin and trichoderma	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:42
S10	10	hydrophobin and trichoderma and foam\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:42
S11	22	hydrophobin same trichoderma	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:42

EAST Search History

S12	15	hydrophobin and trichoderma and fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 11:43
S13	428	fungus with host with production	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:08
S14	64	fungus with host with production and hydrophobic with proteins	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:09
S15	0	fungus with host with production same hydrophobic with proteins	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:09
S16	64	fungus with host with production and hydrophobic with proteins	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:09
S17	64	fungus with host with production and hydrophobic with proteins and polypeptides	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:09
S18	38	fungus with host with production and hydrophobic with protein and fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:10
S19	0	fungus with host with production and hydrophobic with protein same fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:10
S20	38	fungus with host with production and hydrophobic with protein and fermentation	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/01/25 12:10

FULL ESTIMATED COST

0.21

0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
AQUASCI, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CAPLUS,
CEABA-VTB, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, DRUGB,
DRUGMONOG2, DRUGU, EMBAL, EMBASE, ...' ENTERED AT 12:47:38 ON 25 JAN 2007

68 FILES IN THE FILE LIST IN STNINDEX

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=> (HFBI or HFBII) and foam
1 FILE AGRICOLA
1 FILE BIOENG
1 FILE BIOSIS
1 FILE BIOTECHNO
1 FILE CAPLUS
1 FILE CEABA-VTB
1 FILE EMBASE
1 FILE ESBIOBASE
1 FILE LIFESCI
1 FILE MEDLINE

46 FILES SEARCHED...

1 FILE PASCAL
1 FILE SCISEARCH
8 FILE USPATFULL
2 FILE USPAT2

14 FILES HAVE ONE OR MORE ANSWERS, 68 FILES SEARCHED IN STNINDEX

L1 QUE (HFBI OR HFBII) AND FOAM

=> file agricola bioeng biosis biotechno caplus embase lifesci		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.52	2.73

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=> (HFBI or HFBII) and foam
L2 7 (HFBI OR HFBII) AND FOAM

=> d ti 1-7

- L2 ANSWER 1 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2007) on STN
- TI Process technological effects of deletion and amplification of hydrophobins I and II in transformants of *Trichoderma reesei*.
- L2 ANSWER 2 OF 7 BIOENG COPYRIGHT 2007 CSA on STN
- TI Process technological effects of deletion and amplification of hydrophobins I and II in transformants of *Trichoderma reesei*
- L2 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
- TI Process technological effects of deletion and amplification of hydrophobins I and II in transformants of *Trichoderma reesei*.
- L2 ANSWER 4 OF 7 BIOTECHNO COPYRIGHT 2007 Elsevier Science B.V. on STN
- TI Process technological effects of deletion and amplification of hydrophobins I and II in ~~transformants of~~ *Trichoderma reesei*
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- L2 ANSWER 7 OF 7 LIFESCI COPYRIGHT 2007 CSA on STN
- TI Process technological effects of deletion and amplification of hydrophobins I and II in transformants of *Trichoderma reesei*

=> d ab bib 2

- L2 ANSWER 2 OF 7 BIOENG COPYRIGHT 2007 CSA on STN
- AB Transformants of the *Trichoderma reesei* strains QM9414 and Rut-C30 were constructed in which the genes for the two major hydrophobin proteins, hydrophobins I (HFB I) and II (HFB II), were deleted or amplified by molecular biological techniques. Growth parameters and foam production of the transformant strains were compared with the corresponding properties of the parent strains by cultivation in laboratory bioreactors under conditions of catabolite repression (glucose medium) or induction of cellulolytic enzymes and other secondary metabolites (cellulose and lactose media). All the transformed strains exhibited vegetative growth properties similar to those of their parent. The Delta hfb2 (but not the Delta hfb1) transformant showed reduced tendency to foam, whereas both strains overproducing hydrophobins foamed extensively, particularly in the case of HFB II. Enzyme production on cellulose medium was unaltered in the Delta hfb2 transformant VTT D-99676, but both the Delta hfb2 and HFB II-overproducing transformants exhibited somewhat decreased enzyme production properties on lactose medium. Production of HFB I by the multi-copy transformant VTT D-98692 was almost 3-fold that of the parent strain QM9414. Overproduction of HFB II by the transformant VTT D-99745, obtained by transformation with three additional copies of the hfb2 gene under the cbh1 promoter, was over 5-fold compared to production by the parent strain Rut-C30. The Delta hfb2 transformant VTT D-99676 produced a greatly increased number of spores on lactose medium compared with the parent strain, whereas the HFB II-overproducing transformant VTT D-99745 produced fewer spores.

AN 2004420860 BIOENG
 DN 5381331
 TI Process technological effects of deletion and amplification of
 hydrophobins I and II in transformants of *Trichoderma reesei*
 AU Bailey, MJ; Askolin, S; Hoerhammer, N; Tenkanen, M; Linder, M; Penttilae,
 M; Nakari-Setälä, T
 CS VTT Biotechnology, Box 1500, 02044 VTT, Finland,
 [mailto:michael.bailey@vtt.fi]
 SO Applied Microbiology and Biotechnology [Appl. Microbiol. Biotechnol.].
 Vol. 58, no. 6, pp. 721-727. May 2002.
 Published by: Springer-Verlag, [URL:http://link.springer.de/link/service/
 journals/00253/bibs/2058_006/20580721.htm]
 ISSN: 0175-7598
 DT Journal
 LA English
 SL English
 OS Agricultural and Environmental Biotechnology Abstracts; Microbiology
 Abstracts C: Algology, Mycology & Protozoology

=> hydrophobin and foam

L3 14 HYDROPHOBIN AND FOAM

=> dup remove

ENTER L# LIST OR (END):13

PROCESSING COMPLETED FOR L3

L4 4 DUP REMOVE L3 (10 DUPLICATES REMOVED)

=> d ti 1-4

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 (2007) on STN DUPLICATE 1

TI Fungal hydrophobins as predictors of the gushing activity of
 malt.

L4 ANSWER 2 OF 4 AGRICOLA Compiled and distributed by the National
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TI Process technological effects of deletion and amplification of
 hydrophobins I and II in transformants of *Trichoderma reesei*.

L4 ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
 DUPLICATE 3

TI Are hydrophobins and/or non-specific lipid transfer proteins
 responsible for gushing in beer? New hypotheses on the chemical nature of
 gushing inducing factors.

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

TI A method for decreasing the foam formation during cultivation of
 a microorganism

=> d ab bib 4, 3, 2

L4 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

AB This invention relates to a method for decreasing the foam
 formation during cultivation of a microorganism and to a method for
 producing an enhanced amount of a product of interest. The method comprises
 that the microorganism is modified in such a way that the microorganism
 does not produce an essential amount of at least one of the proteins,
 polypeptides or peptides associated with foam formation during

cultivation of the unmodified microorganism. In particular the method comprises that the microorganism is modified not to produce an essential amount of amphipathic or hydrophobic proteins, polypeptides or peptides.

AN 2001:152808 CAPLUS
 DN 134:206662
 TI A method for decreasing the foam formation during cultivation of
 a microorganism
 IN Nakari-Setaelae, Tiina; Penttilae, Merja; Bailey, Michael; Tenkanen, Maija
 PA Valtion Teknillinen Tutkimuskeskus, Finland
 SO PCT Int. Appl., 65 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001014521	A1	20010301	WO 2000-FI707	20000821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG FI 9901781 A 20010221 FI 1999-1781 19990820 FI 108863 B1 20020415 CA 2382468 A1 20010301 CA 2000-2382468 20000821 EP 1204738 A1 20020515 EP 2000-954690 20000821 EP 1204738 B1 20060125 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL JP 2003507056 T 20030225 JP 2001-518837 20000821 AU 782206 B2 20050714 AU 2000-67052 20000821 AT 316570 T 20060215 AT 2000-954690 20000821 PT 1204738 T 20060531 PT 2000-954690 20000821 ES 2257310 T3 20060801 ES 2000-954690 20000821 PRAI FI 1999-1781 A 19990820 WO 2000-FI707 W 20000821				

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L4 ANSWER 3 OF 4 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
 DUPLICATE 3

AB Gushing of beer is characterised by the fact that immediately after
 opening a bottle a great number of fine bubbles are created throughout the
 volume of beer and ascend quickly under foam formation, which
 flows out of the bottle. This infuriating gushing phenomenon has been,
 and still is, a problem of world-wide importance to the brewing industry.
 It is generally assumed that the causes of malt-derived gushing are due to
 the use of "weathered" barley or wheat and the growth of moulds in the
 field, during storage and malting. We now develop a hypothesis connecting
 several lines of evidence from different laboratories. These results
 indicate that the fungal hydrophobins, hydrophobic components of
 conidiospores or aerial mycelia, are gushing-inducing factors.
 Furthermore, increased formation of ns-LTPs (non-specific lipid transfer
 proteins), synthesised in grains as response to fungal infection, and
 their modification during the brewing process may be responsible for
 malt-derived gushing.

AN 2002:270203 BIOSIS
 DN PREV200200270203
 TI Are hydrophobins and/or non-specific lipid transfer proteins
 responsible for gushing in beer? New hypotheses on the chemical nature of

gushing inducing factors.

AU Hippeli, Susanne [Reprint author]; Elstner, Erich F.
 CS Lehrstuhl fuer Phytopathologie, Labor fuer Biochemische Toxikologie,
 Wissenschaftszentrum Weiherstephan, Technische Universitaet Muenchen, Am
 Hochanger 2, D-85350, Freising-Weiherstephan, Germany
 S.Hippeli@lrz.tum.de
 SO Zeitschrift fuer Naturforschung Section C Journal of Biosciences,
 (January-February, 2002) Vol. 57, No. 1-2, pp. 1-8. print.
 ISSN: 0939-5075.
 DT Article
 General Review; (Literature Review)
 LA English
 ED Entered STN: 1 May 2002
 Last Updated on STN: 1 May 2002

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 (2007) on STN DUPLICATE 2

AB Transformants of the *Trichoderma reesei* strains QM9414 and Rut-C30 were
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 5-fold compared to production by the parent strain Rut-C30. The *delta hfb2*
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 lactose medium compared with the parent strain, whereas the
 HFB II-overproducing transformant VTT D-99745 produced fewer spores.

AN 2002:50907 AGRICOLA
 DN IND23281724
 TI Process technological effects of deletion and amplification of
 hydrophobins I and II in transformants of *Trichoderma reesei*.
 AU Bailey, M.J.; Askolin, S.; Horhammer, N.; Tenkanen, M.; Linder, M.;
 Penttila, M.; Nakari-Setälä, T.
 AV DNAL (QR1.E9)
 SO Applied microbiology and biotechnology, May 2002. Vol. 58, No. 6. p.
 721-727
 Publisher: Berlin, Germany : Springer Verlag.
 CODEN: AMBIDG; ISSN: 0175-7598

NTE Includes references
 CY Germany
 DT Article
 FS Non-U.S. Imprint other than FAO
 LA Englis